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MEMORANDUM

DATE: March 3, 2010

TO: Arianne Preite

FROM: Angela Roundy

SUBJECT: Addendum to the Natural Environment Study (NES) for the Bolsa Chica Roadway Embankment Reconstruction Project

The following information is provided as an Addendum to the Bolsa Chica Roadway Embankment Reconstruction Project Natural Environment Study (NES) Report prepared by LSA Associates, Inc. (LSA) in August 2009 for the California Department of Transportation (Caltrans) District 12. The NES Report has not been circulated for public review due to the project's classification as an emergency. Emergency projects are considered exempt from the requirements of CEQA, thus, a Statutory Exemption (SE) was prepared. This Addendum will become an attachment to the NES Report and will be circulated for public review hereafter. Proposed project design refinements and resulting impact analyses are addressed in this Addendum.

Project Location and Setting

The Bolsa Chica Roadway Embankment Reconstruction Project is located in the City of Huntington Beach in Orange County within the jurisdiction of California Department of Transportation (Caltrans) District 12. The project extends along a segment of State Route 1 (SR-1), also known as Pacific Coast Highway (PCH), between Warner Avenue and Seapoint Avenue (refer to Figure 1; all figures attached). Post miles (PM) for the biological study area (BSA) range from PM 28.7 to PM 29.7.

SR-1 was added to the State highway system by the State Highway Board Amendment of 1919. The segment of SR-1 affected by the proposed project is a four-lane conventional highway that runs northwest and southeast, with two lanes in each direction.

The Bolsa Chica Ecological Reserve lies north-northeast of the project area, and Bolsa Chica State Beach is located to the west. A small planned community is located to the north, just past Warner Avenue. The project lies within the Coastal Zone of the California Coastal Act of 1976.

Both the original and refined project designs occur within the BSA as defined here and as shown on Figure 1. All work will be completed within the Caltrans right-of-way (ROW).

Purpose

The original emergency project will preserve the publicly owned and operated facility in a safe, efficient, and continuously usable condition, thereby maintaining coastal access and mobility for the traveling public. The emergency project will also protect the adjacent estuarine environment from sloughing of the roadway embankment and the deposition of the road base and asphalt rubble.

Proposed project refinements will bring the traffic safety to current Caltrans design standards for Clear Recovery Zone requirements and will help prevent any injuries to pedestrians and the motoring public.

Emergency Project

The emergency project originally described in the NES was proposed to protect the roadway embankments on SR-1 from further erosion and degradation by restoring the partially washed out highway embankment/shoulder pavement. Sheet piling 30 feet (ft) in depth was installed along approximately 475 ft of the roadway and 5 ft from the edge of the asphalt.

Project construction occurred between July 27, 2009, and August 7, 2009, from approximately 6:00 a.m. to 6:00 p.m. during weekdays only. Initial project activities included potholing for utility verification and installation of detour signs. Between July 28 and July 31, 475 ft of sheet piling was installed to 30 ft in depth, approximately 5 ft from the edge of the asphalt shoulder. Sheet piles were then trimmed and backfilled with sand to a level equal to existing shoulder elevations. During the second week of construction, final trimming and backfilling occurred. The damaged shoulder of the road was then removed and paved. All work was completed following the monitoring and reporting requirements specified in the NES (LSA, Natural Environment Study Report, August 2009).

A postconstruction summary of monitoring results and assessment of project-related impacts is provided in the Revised Biological Construction Monitoring and Impact Assessment Report for the Bolsa Chica Roadway Embankment Reconstruction Project (LSA, February 2010).

Project Refinements

The refined project falls within the same geographic limits as the previously described emergency project. The refined project proposes to install approximately 538 ft (2.4 ft high) of metal beam guard rail (MBGR) at the edge of existing paved shoulder (4 ft away from the edge of sheet piling) and to install 495 ft (3 ft high) of pedestrian safety cable rail along the edge of the sheet piling. Soil will be excavated for installation of the MBGR posts and cable railing foundation.

Additional work includes installation[1] and removal of 520 ft of a temporary K-rail and its underlying 479 ft of AC strip (3.5 ft wide). Upon removal of the AC strip, the area will be filled and compacted with imported aggregate subbase (Class 2).

The refined project requires no ROW acquisition or utilities involvement.

[1] The temporary K-rail was installed on August 21, 2009, in compliance with Caltrans safety specifications. Fill (i.e., sand) was displaced during installation activities and later removed by hand from adjacent areas of vegetation in the presence of a biological monitor on August 26, 2009, as described in the Revised Biological Construction Monitoring and Impact Assessment Report (LSA, February 2010).

Environmental Analysis – Biological Resources

Based on the design refinements, there have been some changes to impact acreages relative to vegetation communities and areas of potential jurisdiction that were analyzed in the Natural Environment Study (NES).The expected habitat losses and potential jurisdictional impacts associated with the proposed project refinements were calculated using geographic information system (GIS) software.

Vegetation Communities. Table A provides a comparison of impacts to vegetation communities for the refined project impact area with those identified in the NES for the original emergency project (Figure 2).

Table A: Proposed Permanent and Temporary Impacts to Existing Vegetation Communities

Vegetation Community	Emergency Project[1] (Impacted Acres)		Refined Project[2] (Impacted Acres)	
	Permanent	Temporary	Permanent	Temporary
Bare Ground	0.001	0.000	0.001	0.000
Estuarine Wetland/Open Water	0.094	0.000	0.099	0.004
Transportation/Road	0.517[3]	3.507[2]	0.059	0.002

1 Source: Natural Environment Study Report, LSA Associates, Inc., August 2009.

2 Represents proposed impacts from project refinements in addition to actual impacts from emergency project.

3 A majority of temporary and permanent impacts to transportation/road areas proposed as a part of the emergency project were avoided during implementation of the emergency project. Please see Revised Biological Construction Monitoring and Impact Assessment Report (February 2010, LSA) for further details.

As shown in Table A, the changes to total project-related impacts associated with proposed project design refinements include: (1) an increase of 0.005 acre (ac) of permanent impacts to the estuarine wetland/open water vegetation community due to installation of the MBGR; (2) an increase of 0.004 ac of temporary impacts to the estuarine wetland/open water vegetation community due to installation of a temporary crash cushion; (3) a reduction of 0.458 ac of permanent impacts to existing roads during construction of the original emergency project; and (4) a reduction of 3.505 ac of temporary impacts to existing roads during construction of the original emergency project.

Potential Corps Jurisdiction. Table B provides a comparison of impacts to United States Army Corps of Engineers (Corps) jurisdictional areas for the refined project impact area with those identified in the NES report for the original emergency project. All proposed project impacts to potential Corps jurisdiction are permanent (Figure 3).

Table B: Proposed Permanent Impacts to Waters of the United States

Vegetation Community	Emergency Project[1] (Impacted Acres)	Refined Project[2] (Impacted Acres)
Wetland[3]	0.010	0.010
Deepwater Aquatic[4]	0.011	0.011

1 Source: Natural Environment Study Report, LSA Associates, Inc., August 2009.
2 Represents proposed impacts from project refinements in addition to actual impacts from emergency project.
3 A total of 0.001 acre of proposed effects to Corps wetland waters is also designated as a proposed effect to Corps Section 10 waters.
4 The entire area (i.e., 0.011 acre) of proposed effects to Corps deepwater aquatic habitat is also designated as a proposed effect to Corps Section 10 waters.

As shown in Table B, there are no changes to project-related impacts to waters of the United States due to the proposed design refinements.

Potential CCC Jurisdiction. Table C provides a comparison of impacts to California Coastal Commission (CCC) jurisdictional areas for the refined project impact area with those identified in the NES report for the original emergency project (Figure 3).

Table C: Proposed Permanent and Temporary Impacts to CCC Jurisdiction

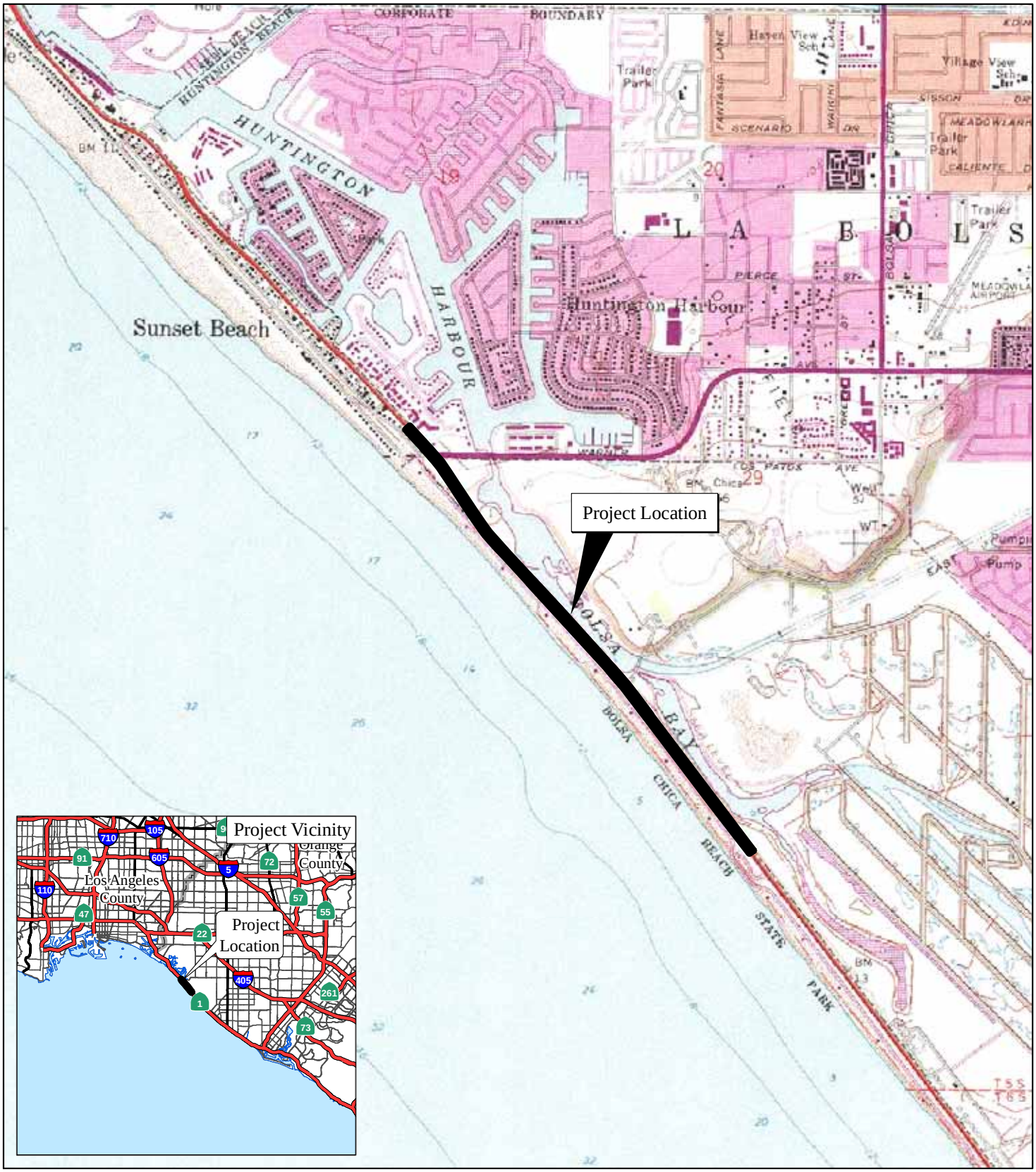
Vegetation Community	Emergency Project[1] (Impacted Acres)		Refined Project[2] (Impacted Acres)	
	Permanent	Temporary	Permanent	Temporary
Wetland	0.080	0.000	0.096	0.005
Deepwater Aquatic	0.011	0.000	0.011	0.000

1 Source: Natural Environment Study Report, LSA Associates, Inc., August 2009.
2 Represents proposed impacts from project refinements in addition to actual impacts from emergency project.
CCC = California Coastal Commission

As shown in Table C, the changes to total project-related impacts associated with proposed project design refinements include: (1) an increase of 0.016 ac of permanent impacts to CCC wetlands due to installation of the MBGR; and (2) an increase of 0.005 ac of temporary impacts to CCC wetlands due to the proposed installation of a temporary crash cushion.

No other appreciable changes to biological resources would occur as a result of the proposed refinements to the project design.

Attachments: Figure 1: Project Location
Figure 2: Vegetation Map and Proposed Impacts
Figure 3: Potential Corps/CCC Jurisdiction and Proposed Impacts



LSA

FIGURE 1

LEGEND

Project Location

0 1000 2000

FEET

SOURCE: USGS 7.5' QUAD - SEAL BEACH ('81); CALIF.

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SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Project Location Map

12-ORA-1 PM 28.7/29.7
EA 0K0100

LEGEND

- Biological Study Area
- Vegetation Communities
  - Bare Ground
  - Coastal Scrub
  - Disturbed
  - Dune Scrub
  - Estuarine Wetland/Open Water
  - Exotic Annual Grassland
  - Invaded Dune Mat
  - Invaded, Ice Plant Dune Mat
  - Native Dune Mat
  - Transportation/Road
- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B
- Impact Areas
  - Permanent Impact
  - Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
FEET

SOURCE: MSVE (2008); EagleAerial (3/24/08)

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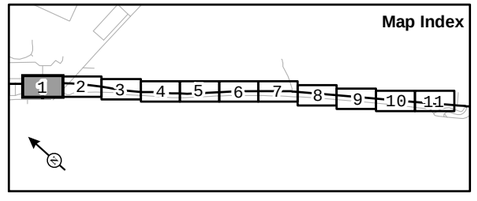

FIGURE 2
Sheet 1 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
- Dune Scrub
- Estuarine Wetland/Open Water
- Exotic Annual Grassland
- Invaded Dune Mat
- Invaded, Ice Plant Dune Mat
- Native Dune Mat
- Transportation/Road
- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
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SOURCE: MSVE (2008); EagleAerial (3/24/08)

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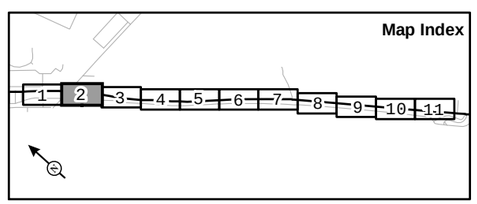

FIGURE 2
Sheet 2 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
- Dune Scrub
- Estuarine Wetland/Open Water
- Exotic Annual Grassland
- Invaded Dune Mat
- Invaded, Ice Plant Dune Mat
- Native Dune Mat
- Transportation/Road
- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

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SOURCE: MSVE (2008); EagleAerial (3/24/08)

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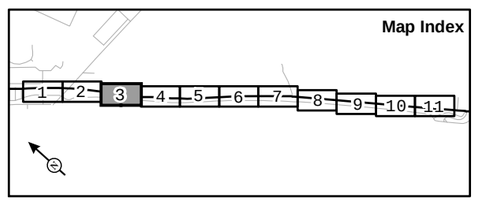

FIGURE 2
Sheet 3 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area
- Vegetation Communities
  - Bare Ground
  - Coastal Scrub
  - Disturbed
  - Dune Scrub
  - Estuarine Wetland/Open Water
  - Exotic Annual Grassland
  - Invaded Dune Mat
  - Invaded, Ice Plant Dune Mat
  - Native Dune Mat
  - Transportation/Road
- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B
- Impact Areas
  - Permanent Impact
  - Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

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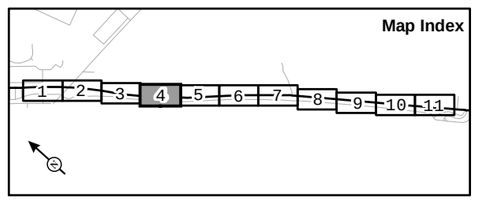

SOURCE: MSVE (2008); EagleAerial (3/24/08)

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FIGURE 2
Sheet 4 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
- Dune Scrub
- Estuarine Wetland/Open Water
- Exotic Annual Grassland
- Invaded Dune Mat
- Invaded, Ice Plant Dune Mat
- Native Dune Mat
- Transportation/Road
- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

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SOURCE: MSVE (2008); EagleAerial (3/24/08)

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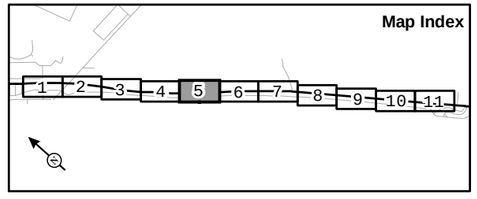
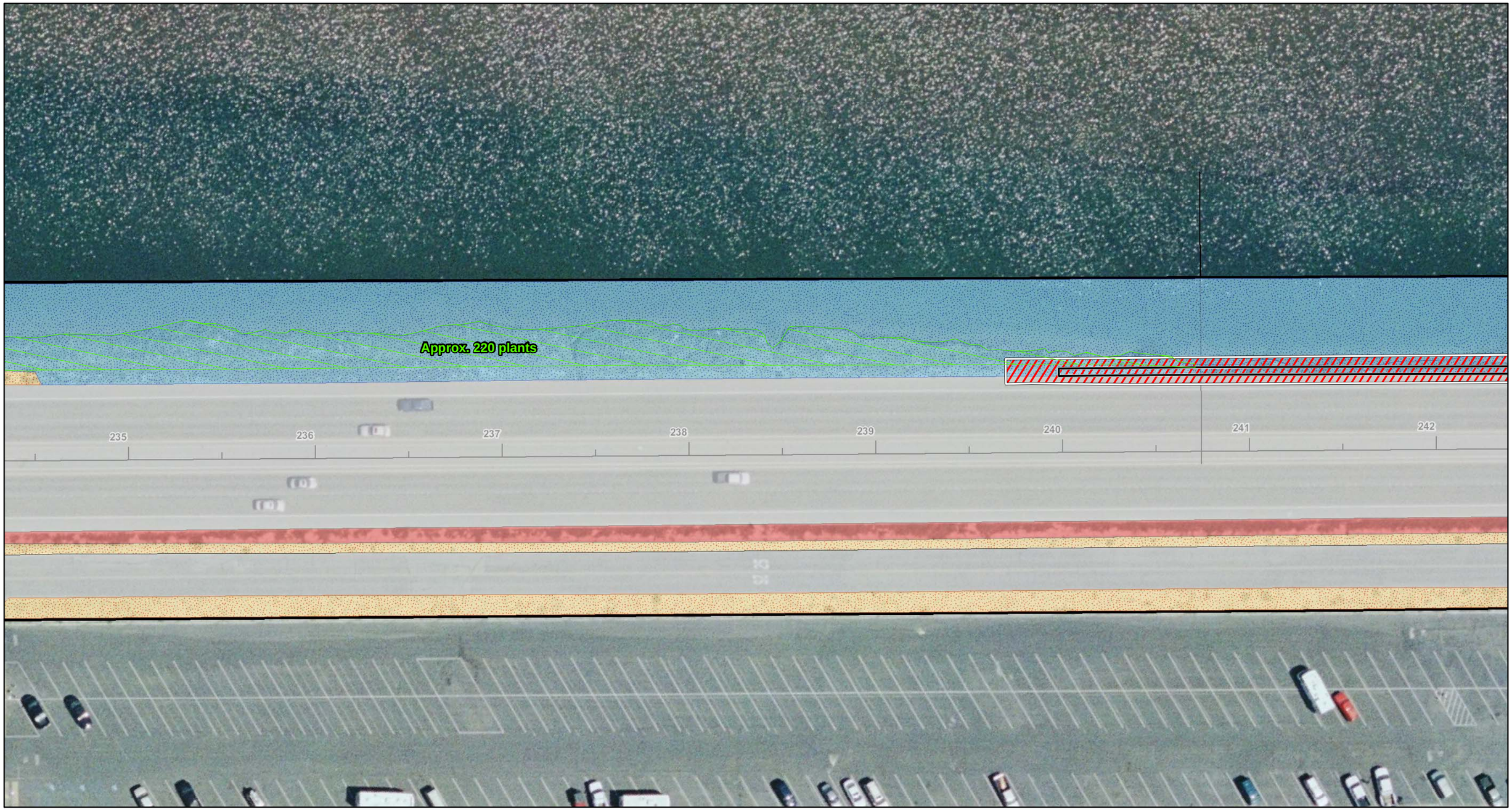


FIGURE 2
Sheet 5 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100



LEGEND

Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
- Dune Scrub
- Estuarine Wetland/Open Water
- Exotic Annual Grassland
- Invaded Dune Mat
- Invaded, Ice Plant Dune Mat
- Native Dune Mat
- Transportation/Road

- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
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SOURCE: MSVE (2008); EagleAerial (3/24/08)

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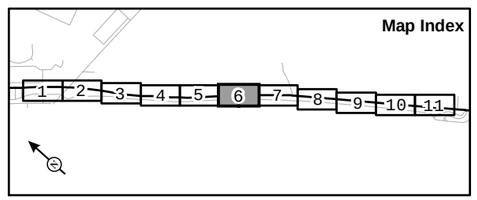

FIGURE 2
Sheet 6 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
- Dune Scrub
- Estuarine Wetland/Open Water
- Exotic Annual Grassland
- Invaded Dune Mat
- Invaded, Ice Plant Dune Mat
- Native Dune Mat
- Transportation/Road
- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

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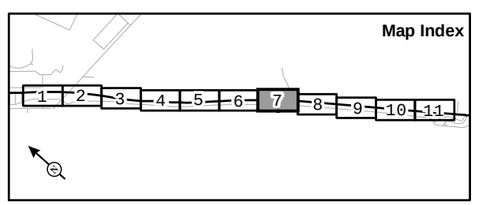

SOURCE: MSVE (2008); EagleAerial (3/24/08)

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FIGURE 2
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SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
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- Invaded, Ice Plant Dune Mat
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Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
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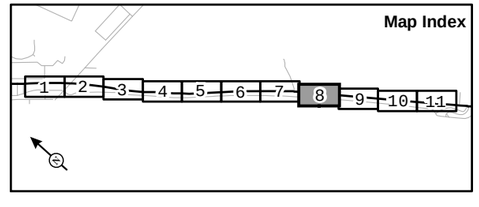

SOURCE: MSVE (2008); EagleAerial (3/24/08)

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FIGURE 2
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SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
- Dune Scrub
- Estuarine Wetland/Open Water
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Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

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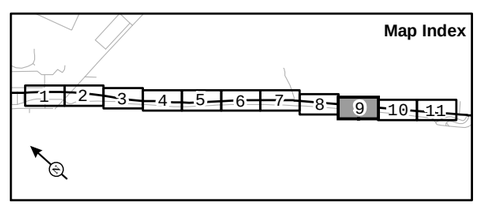

SOURCE: MSVE (2008); EagleAerial (3/24/08)

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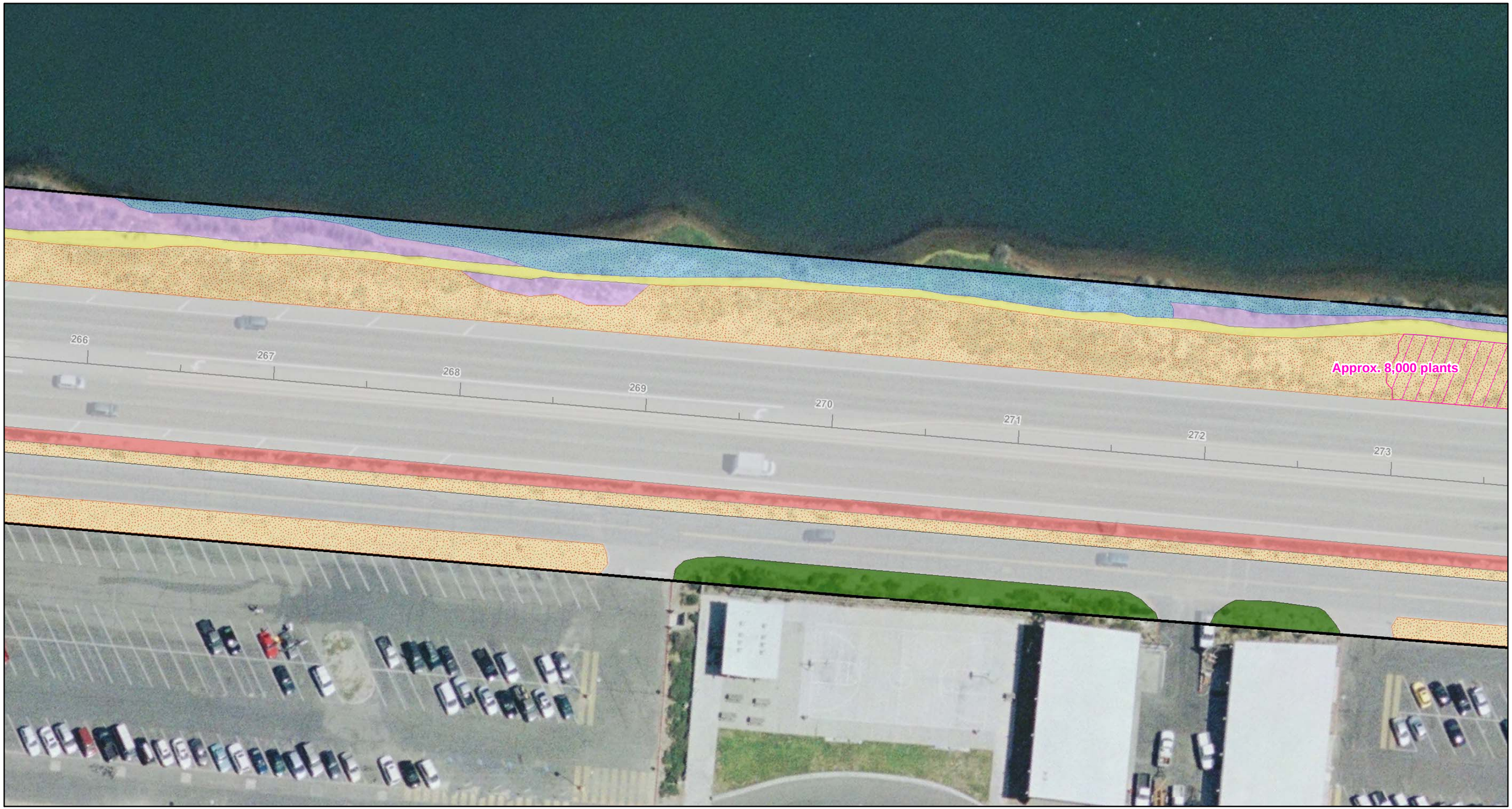
FIGURE 2
Sheet 9 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100



LEGEND

- Biological Study Area

Vegetation Communities

- Bare Ground
- Coastal Scrub
- Disturbed
- Dune Scrub
- Estuarine Wetland/Open Water
- Exotic Annual Grassland
- Invaded Dune Mat
- Invaded, Ice Plant Dune Mat
- Native Dune Mat
- Transportation/Road
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- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
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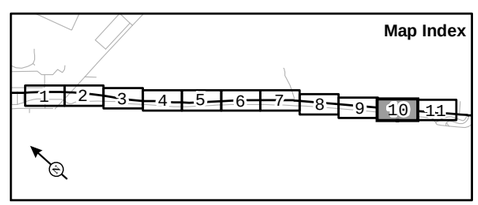

SOURCE: MSVE (2008); EagleAerial (3/24/08)

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FIGURE 2
Sheet 10 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

LEGEND

- Biological Study Area
- Vegetation Communities
  - Bare Ground
  - Coastal Scrub
  - Disturbed
  - Dune Scrub
  - Estuarine Wetland/Open Water
  - Exotic Annual Grassland
  - Invaded Dune Mat
  - Invaded, Ice Plant Dune Mat
  - Native Dune Mat
  - Transportation/Road
- Locations of Coast woolly heads (*Nemacaulis denudata*) CNPS 1B
- Locations of Estuary Seablight (*Sueada esteroa* var. *denudata*) CNPS 1B
- Impact Areas
  - Permanent Impact
  - Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
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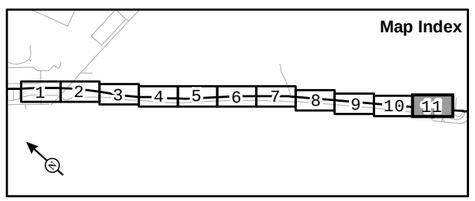
Map Index



SOURCE: MSVE (2008); EagleAerial (3/24/08)

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FIGURE 2
Sheet 11 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Vegetation Map and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

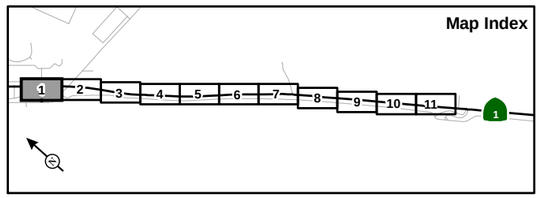
LEGEND

- Biological Study Area
- CCC Wetlands only
- Corps Section 404/CCC Wetlands
- Corps Section 404/CCC Deepwater Aquatic
- Sample Pit (with ID)
- Corps Section 10 Waters

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
FEET



SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
Sheet 1 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

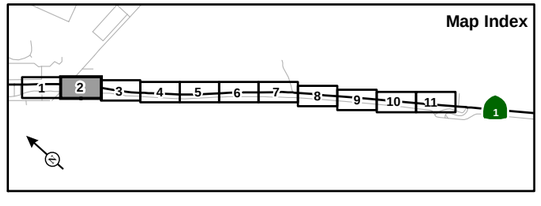
LEGEND

- Biological Study Area
- CCC Wetlands only
- Corps Section 404/CCC Wetlands
- Corps Section 404/CCC Deepwater Aquatic
- Sample Pit (with ID)
- Corps Section 10 Waters

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
FEET



SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
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SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100

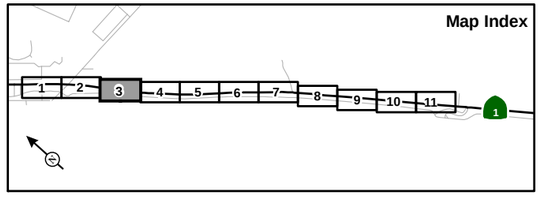
LEGEND

- Biological Study Area
- CCC Wetlands only
- Corps Section 404/CCC Wetlands
- Corps Section 404/CCC Deepwater Aquatic
- Sample Pit (with ID)
- Corps Section 10 Waters

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
FEET



SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
Sheet 3 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
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EA 0K0100

LEGEND

- Biological Study Area
- CCC Wetlands only
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- Corps Section 404/CCC Deepwater Aquatic
- Sample Pit (with ID)
- Corps Section 10 Waters

Impact Areas

- Permanent Impact
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- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
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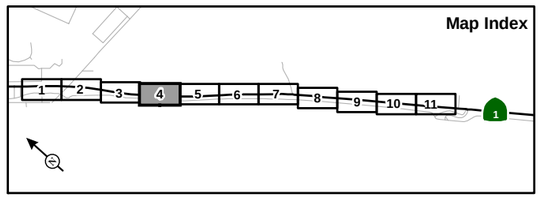

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
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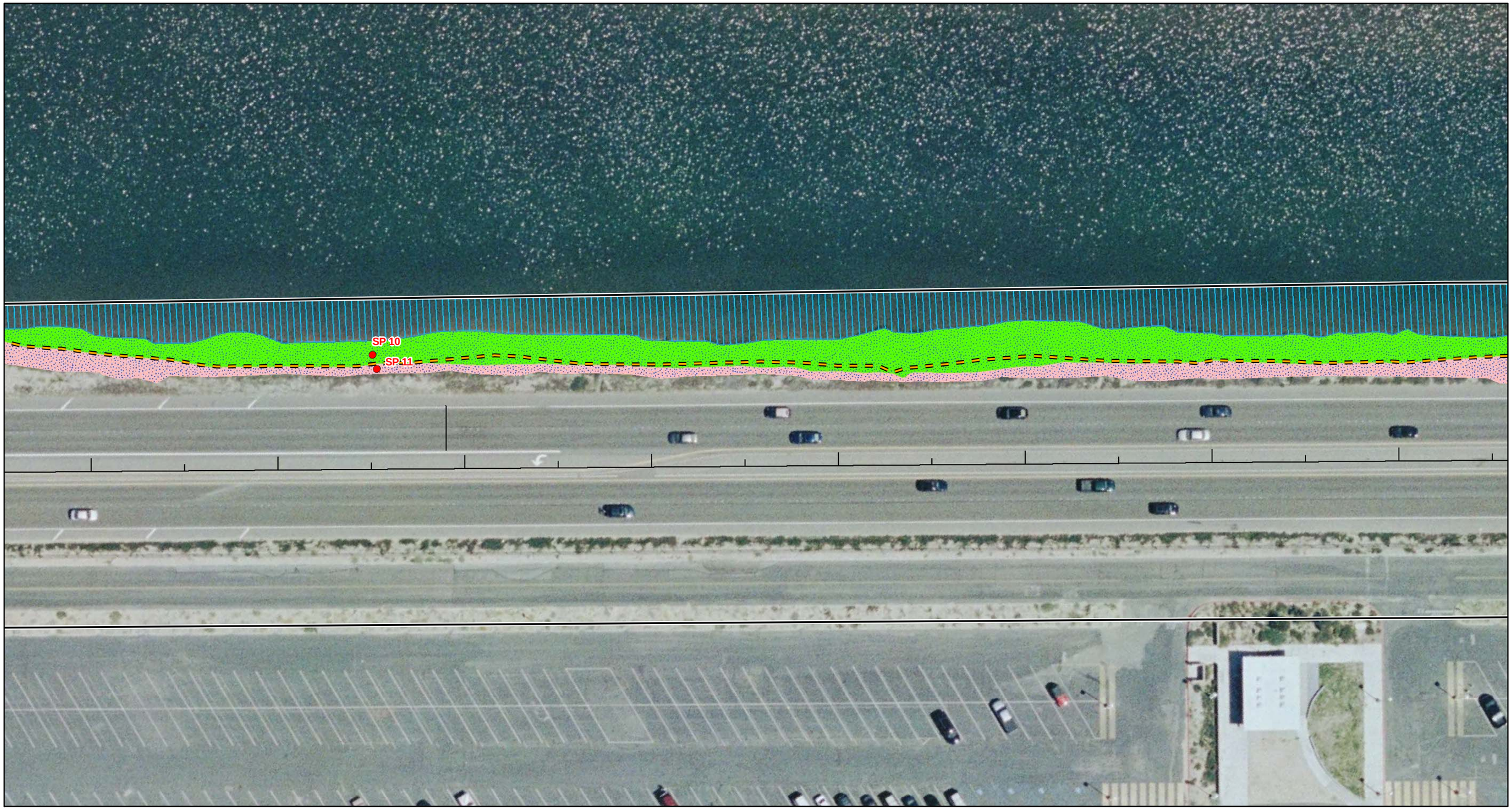
SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100



LEGEND

- Biological Study Area
- CCC Wetlands only
- Corps Section 404/CCC Wetlands
- Corps Section 404/CCC Deepwater Aquatic
- Sample Pit (with ID)
- Corps Section 10 Waters

Impact Areas

- Permanent Impact
- Temporary Impact
- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
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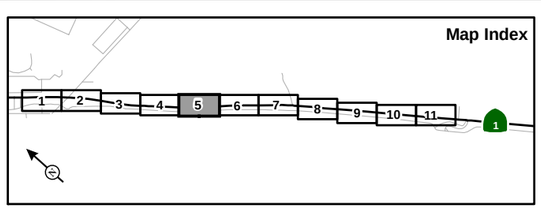

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
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SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
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EA 0K0100

LEGEND

- Biological Study Area
- CCC Wetlands only
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Impact Areas

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- Temporary Crash Cushion
- Permanent Metal Beam Guardrail
- Sheet Piling / Permanently Restore Embankment and Shoulder

0 25 50
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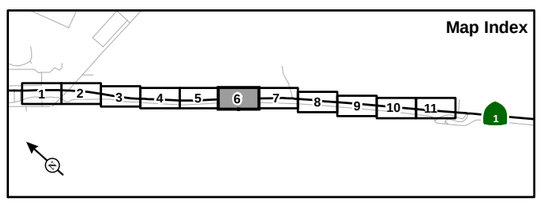

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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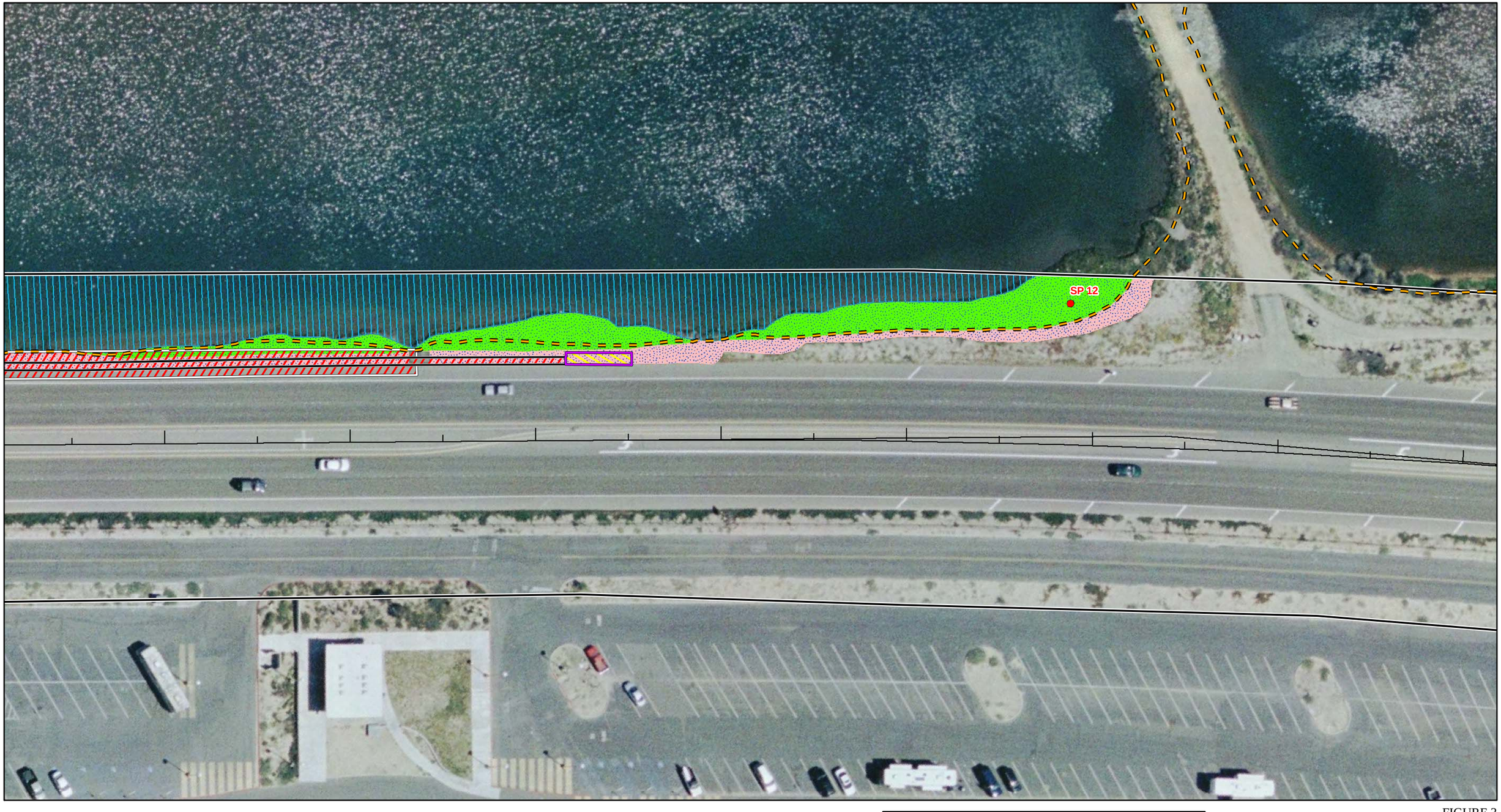
FIGURE 3
Sheet 6 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100



LEGEND

- Biological Study Area
- CCC Wetlands only
- Corps Section 404/CCC Wetlands
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Impact Areas

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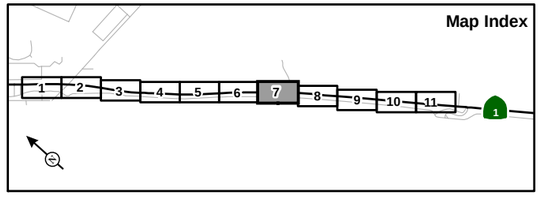

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
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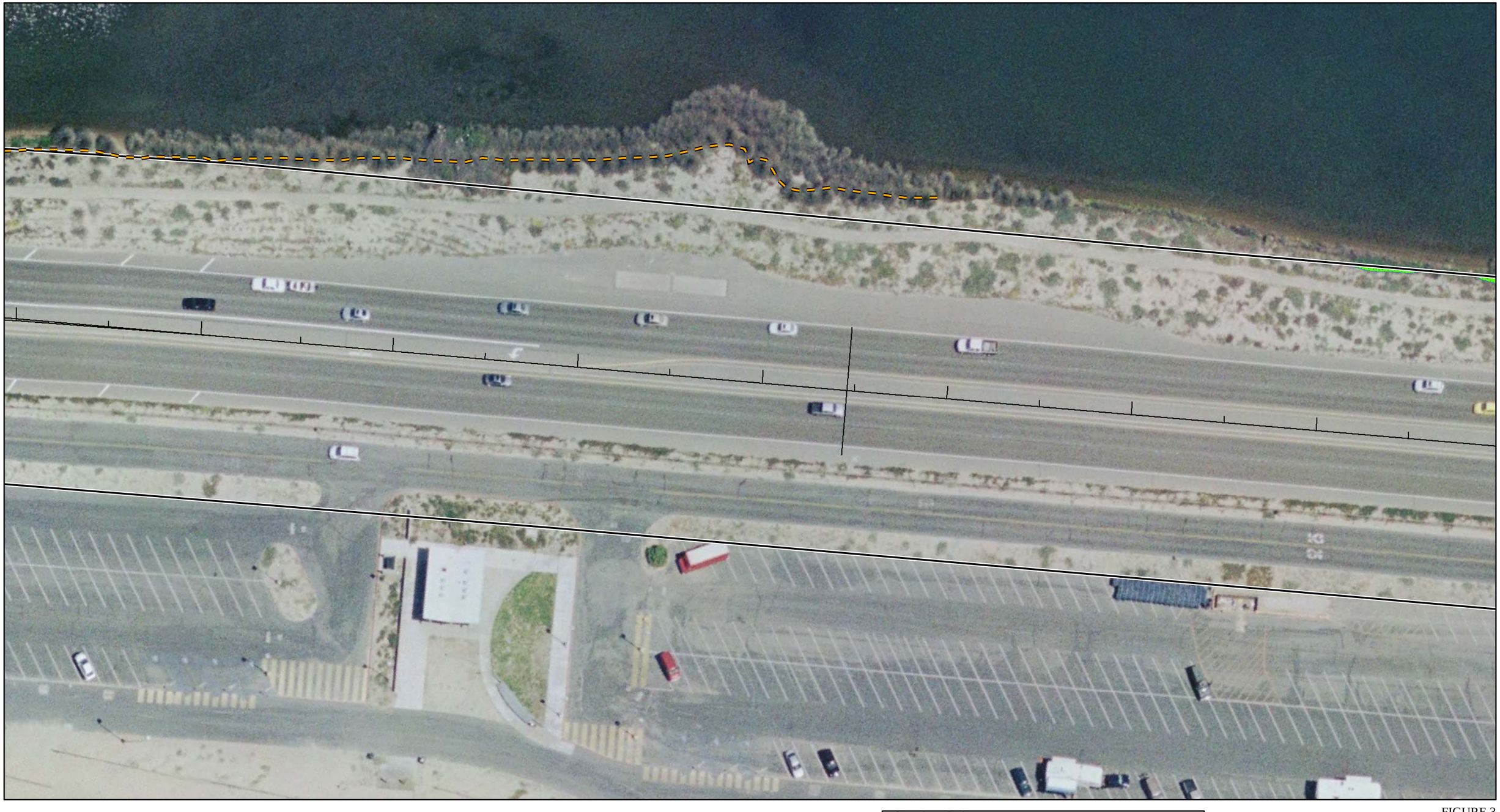
SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
PM 28.7-29.7
EA 0K0100



LEGEND

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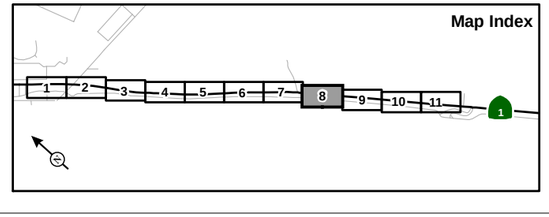

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
Sheet 8 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project
Potential Corps/CCC Jurisdiction and Proposed Impacts
12-Ora-1
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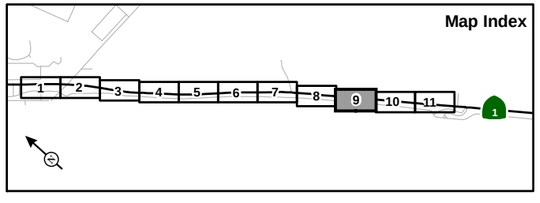

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
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SR-1 Bolsa Chica Roadway Embankment Reconstruction Project
Potential Corps/CCC Jurisdiction and Proposed Impacts
12-Ora-1
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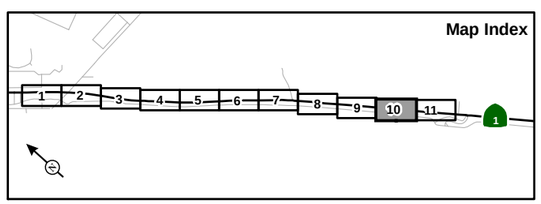

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
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SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
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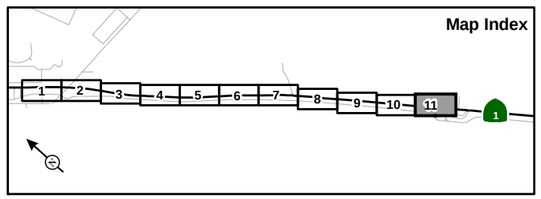

SOURCE: Aerial - MSVE (2008); Aerial and CAD - Caltrans (04/09/2009)

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FIGURE 3
Sheet 11 of 11

SR-1 Bolsa Chica Roadway Embankment Reconstruction Project

Potential Corps/CCC Jurisdiction and Proposed Impacts

12-Ora-1
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